

EVALUATION OF GOAL 2XL, GRASP, PYTHON AND FIRSTRATE FOR FALLOW BED WEED CONTROL AND CROP TOLERANCE IN COTTON**Donnie K. Miller****M.S. Mathews****LSU AgCenter, Northeast Research Station****St. Joseph, LA****Abstract**

A field study was conducted in 2007 at the Northeast Research Station near St. Joseph, La. to evaluate weed control and soybean and cotton tolerance following late fall/early winter herbicide application. Treatments evaluated included Goal 2XL (oxyflurofen) at 16 oz/A, Grasp (penoxsulam) at 1 oz/A alone or plus Goal 2XL at 16 oz/A, Python (flumetsulam) at 1 oz/A alone or plus Goal 2XL at 16 oz/A, and Firstrate (chloramsulam) at 0.6 oz/A alone or plus Goal 2 XL at 16 oz/A. Treatments were applied at 15 GPA on 11/11/06 to a silty clay loam soil with pH 5.8. Weeds present were ≤ 1 inch in size in each 6.67' x 25' plot. Cotton 'DP 164 B2RF' and soybean 'DK 4967 RR' were planted in each plot on 5/2/07. Parameter estimates included visual weed control 125 d after treatment (DAT), visual crop injury 7 and 15 d after planting (DAP), and crop height 28 and 56 DAP.

At 125 DAT, control of henbit (94 to 100 %) and annual bluegrass (93 to 100%) was greatest following application of Firstrate alone or all Goal 2XL combination treatments. Control of cutleaf evening primrose was at least 88% for all treatments. Swinecress control was at least 86% and similar among all treatments except Goal 2XL (63%) and Grasp (76%) applied alone. Treatments including Python applied alone or in combination with Goal 2XL at 7 (31 to 40%) and 15 (18 to 26%) DAP resulted in greatest cotton injury. Cotton injury for all other treatments was no greater than 11 and 5% at these respective evaluation timings. Soybean exhibited no visual injury at either evaluation interval. Cotton height differences among treatments were not observed at 28 or 56 DAP. Soybean height 28 DAP averaged 14 cm following application of Firstrate alone, which was equivalent to height following Grasp alone (11 cm) and Goal 2XL applied in combination with Python (14 cm) or Firstrate (13 cm), and greater than all other treatments. At 56 DAP, soybean height following application of Firstrate alone averaged 59 cm, which was equivalent to the 51 cm for Python alone, and greater than all other treatments. Lack of significant rainfall early to mid-season resulted in extreme variability in yield, therefore yield data will not be discussed.

Good control of winter weeds evaluated can be achieved 125 DAT with Firstrate and Goal 2XL in combination with Grasp, Python, or Firstrate. Application of Python can result in early season visual cotton injury. Further research is needed to evaluate injury impact on crop yield.